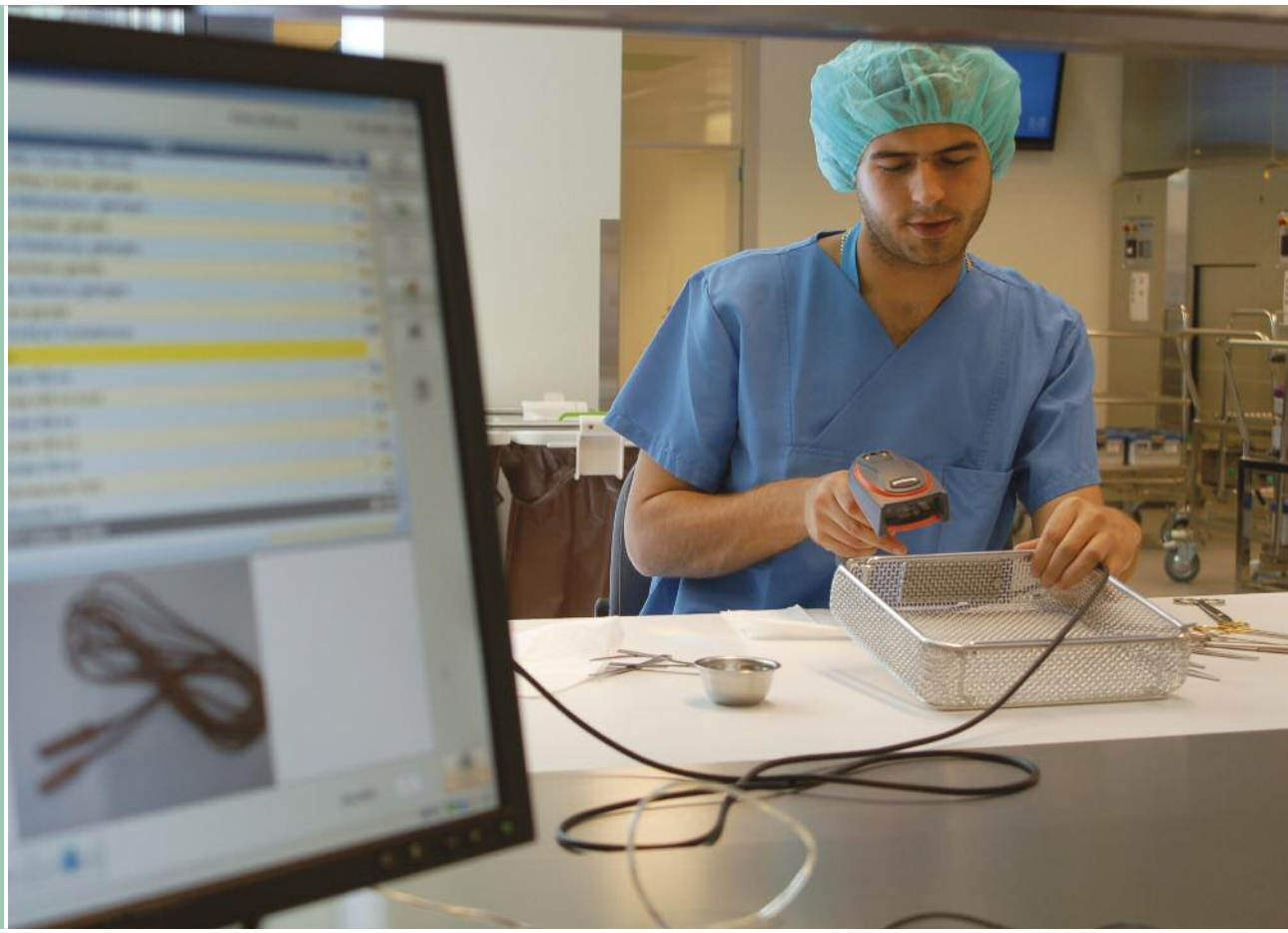
Aesculap Service Systems

instacount® PLUS, instacount® BASIC network

Recommended hardware for instacount® PLUS and instacount® BASIC network



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SHARING EXPERTISE

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Dear customer

Thank you for choosing instacount®. You are acquiring high quality instrument management software that will guide you safely and professionally through the instrument cycle. In order to assure the greatest possible availability of hardware and software, we have put many years of project experience to use in listing only those products whose quality, stability, availability and compatibility with instacount® have been thoroughly tried and tested.

Please note that the use of hardware not listed below can lead to problems. The support offered by other suppliers or no name suppliers can often prove minimal or even non-existent. We would therefore ask you in your own interest to follow our hardware recommendations as closely as possible.

We would also like to point out that we are currently advising against WLAN installations. Although they can be implemented in projects without difficulty, WLAN networks can prove unstable independently of the hardware or software used. To avoid such problems right from the start, we continue to recommend cable networks.

Standard printers for use with instacount® PLUS and instacount® BASIC network

The label printers employed with the system use thermal transfer technology. The resolution of 203 dpi is adequate for this application. Preferably, the label printers are connected via an integrated Ethernet interface.

Label printer ZM400

- Makers: Zebra
- Thermal printer for printing of standard label material e.g. from Aesculap (brochure no. E02602)
- Network-compatible (network card or print server can be ordered as separate accessory).
- available with tear-off edge, dispensor or cutter
- Required components for ZM400 with tear-off edge: ZM400 label printer (default version with tear-off edge)
- Required components for ZM400 with internal winder: ZM400 label printer, integrated internal winder
- Required components for ZM400 with cutter: ZM400 label printer, cutter
- Recommendation: Order network card with the printer

Also approved for use with instacount®:

- cab Mach 4
- cab A4+
- cab M4
- Zebra Z4M

Standard printers for use with instacount® PLUS and instacount® BASIC network

The recommended printer class for batch documentation is color laser or, alternatively, monochrome laser compatible with PCL5 or higher and equipped with a network interface.

Color laser printer ColorlaserJet CP2020-series

- Makers: Hewlett Packard
- Color laser printer for batch documentation and dispatch notes
- Network-compatible
- Required components: Color laser printer, network cable

Laser printer LaserJet 2050dn-series

- Makers: Hewlett Packard
- Laser printer for set lists, supply notes, statistics, etc.
- Network-compatible
- Required components: Laser printer, network cable or USB cable

Color inkjet printer DeskJet 6xxN-series

- Makers: Hewlett Packard
- Inkjetprinter for batch documentation
- Network-compatible
- Required components: Color inkjet printer, network cable or USB cable

We generally recommend integrating all standard printers into the system as network printers.

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Schnittstellen Management für instacount® PLUS und instacount® BASIC network

Device Server NPort 5110
- Makers: MOXA
- Single serial device server RS232 to Ethernet

NPort Server Lite DE-302
- Makers: MOXA
- Double serial device server RS232 to Ethernet

Device Server NPort 5410
- Makers: MOXA
- Quad serial device server RS232 to Ethernet

Device Server NPort 5610
- Hersteller: MOXA
- Eightfold serial device server RS232 to Ethernet

Also approved for use with instacount® PLUS:
- MOXA NPort Server Lite DE-301
- MOXA NPort Server Lite DE-304
- MOXA NPort Server Lite DE-308

Technical specifications

For direct network connection of machines (C&Ds, sterilizers) with serial interfaces.

Any bar code scanner equipped with an RS232 serial interface can be connected. For recent notebook computers, which may come without such interface port, we recommend using the adapter ATEN UC 232 A (USB to RS 232 adapter).
Other adapters subject to individual testing.

Barcode scanner
LS2208
Makers: Motorola
- Cable-connected laser scanner for bar-code reading (NO keyboard laser scanner)
- Interfaces: serial, USB
- Required components for complete serial kit: Cable-connected Laser scanner LS2208, scanner stand, power supply, serial cable 7 ft for LS2208, power cord

Barcode scanner
3800g
- Makers: Honeywell
- Cable-connected RED LED laser scanner for bar-code reading (NO keyboard LED scanner)
- Interfaces: serial, USB
- Required components for complete serial kit: Cable-connected LED scanner3800g, power supply, power cord, serial cable for 3800g

Barcode scanner
LS 3578-FZ
- Makers: Motorola
- Serial, wireless scanner for bar-code reading (NO keyboard scanner)
- Interfaces: serial, USB
- Required components for complete serial kit: serial wireless scanner LS3578-FZ with rech. battery, charging dock, power supply, RS232-cable

Also approved for the use with instacount®:
- Gryphon D120
- Symbol LS 3478-FZ
- HHP IT 3800 LR
- Datalogic Powerscan PBT7100
- Metrologic 9540
- Symbol LS 4278
- HHP IT 5400
- Imageteam 5620

NOT approved for the use with instacount®:
- Gryphon Datalogic BT 100
- PSC Quickscan 6000 Plus

Recommended hardware for
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Marking systems for Data Matrix

We recommend marking processes and systems either tested by Aesculap or proven through years of application in the field. Provided the surfaces of the Aesculap instruments are not soiled or contaminated in any way, these processes were shown to leave the instruments unaffected regarding their corrosion resistance. However, it is impossible to offer any statement concerning mechanical damage to, or the general behavior of third-party instruments undergoing these marking processes.
Please note: Aesculap merely recommends certain marking system, but is not directly involved in their distribution.

Laser marking system
Forano Evolution III Y10
- Manufacturer: Domino
- Complete with accessories, without workpiece holder
- 160 mm Lens with mounting set for SC 10
- Labeling field 75 mm x 75 mm
- Adapted to Aesculap standard
  (only after prior consultation with Aesculap)

Laser marking workstation
Station 5000 with VMC 3020
- Manufacturer: Trumpf
- Complete with accessories, without workpiece holder
- 160 mm Lens
- Labeling field 120 mm x120 mm
- Adapted to Aesculap standard
  (only after prior consultation with Aesculap)

Dot-peen marking system
- Manufacturer: Borries
- Data Matrix stamping machine for durable dot-peen marking and/or plain text labeling on sterile items
- Network-compatible
- Available with hand-held or stationary Data Matrix scanning system and exchangeable fixtures for special instruments or non-regular labeling fields

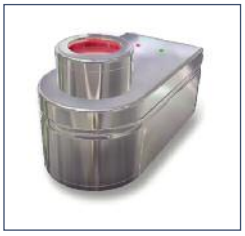
Data Matrix scanners for instacount® PLUS and instacount® BASIC network

Data Matrix Scanner
DS6707-DP20341ZZR

- Makers: Motorola
- Flexible Data Matrix scanner for recording of Data Matrix codes and onedimensional barcodes
- Interfaces: serial
- Network-compatible
- Working distance: 15 – 40 mm

Data Matrix Scanner
DMT100

- Makers: IOSS
- Fixed Data Matrix scanner for recording of Data Matrix codes
- Interfaces: serial
- Reading distance: 0 mm / contact



Also approved for the use with instacount®:

- Cognex Data Men 7500
- Sick IT 6300 DPM

We cannot guarantee a satisfying readability with these scanners.

Recommended hardware for
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Precision balance for instacount® PLUS

Precision balance XS 16000L

- Makers: Mettler Toledo
- Balance to weigh sterile goods at he assembling place or in front of and after an operation
- Network-compatible
- Interface: serial
- Maximum load: 16.100 g
- Precision of weighing: 1g
- Protection class: IP54

Precision balance MS 15 KLIPE

- Makers: Mettler Toledo
- Balance to weigh sterile goods at he assembling place or in front of and after an operation
- Network-compatible
- Interface: serial
- Maximum load 15.000 g
- Precision of weighing: 2g
- Protection class: IP65

Precision balance BBA 425-15 LA

- Makers: Mettler Toledo
- Balance to weigh sterile goods at he assembling place or in front of and after an operation
- Network-compatible
- Interface: serial
- Maximum load: 15.000 g
- Precision of weighing: 0-6 kg=2g, 6-15kg=5g
- Protection class: IP65

Presently, only scales by Mettler Toledo can be integrated with instacount® PLUS. The connection is generally realized via RS232 interface. The recommended scales support the MT-SICS software protocol. Other protocol types are not supported by instacount® PLUS.

Other accessories

Penta PIE MEDICAL MX -xx- CD touch screen

- Makers: PENTA
- Disinfectable and washable touch screen specially designed for use in wet areas (Protection class IP65)
- Fitted with USB, 10 / 100 MBit Ethernet, one parallel and four serial connectors
- Available in 17", 19" or 21"

Crystal Reports

- Makers: Crystal Reports
- From instacount® version 2.7 data base data can be used to define and change reports by the customer
- Required version of Crystal Reports: XI R2

USB foot control, KB series

- Makers: Capaz
- Interface type: USB
- Protection Class: IP-X5 DIN 40050
- 2 or3-pedals
- Operating system: Windows 2000/XP/Vista

IR foot control, IR series

- Makers: Capaz
- Interface type: IR
- Protection Class: IP-X5 DIN 40050
- 2 or 3-pedals
- Operating system: Windows 2000/XP/Vista

Recommended hardware for
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Jet Direct 170x Printserver
- Makers: Hewlett Packard
- Interfaces: parallel
- Transfer rate: 10 / 100 MBit Ethernet

Jet Direct 175x Printserver
- Makers: Hewlett Packard
- Interfaces: USB 2.0
- Transfer rate: 10 / 100 MBit Ethernet

Label printer P-Touch 2700VP
- Makers: Brother
- Label printer used for e.g. quick labeling of container systems
- Interfaces: USB
- USB cable and mains plug included with the product
- The Ptouch 2700 is the device preferred by Aesculap

Printer ribbons for P-Touch
TZS241: Aesculap article no: IC-V010
Length 8 m, height 18 mm, black on white; 5 x TZS241 ribbon per pack

TZS251: Aesculap article no: IC-V010
Length 8 m, height 24 mm, black on white; 5 x TZS251 ribbon per pack

Also approved for use with instacount®:
- P-Touch 2450DX
- P-Touch 9500PC

Specifications for computing equipment for server/client installation

Server	Required	Recommended
Processor	Intel™ or compatible systems with 2,0 GHz Intel™Dual Core Intel® Pentium® processor	Intel™or compatible systems with 2,0 GHz Quad-Core or Dual-Core Intel® Xeon® processor
Operating system	Windows Server 2000 & 2003 Standard edition, for 32-bit	Windows Server 2008 Standard edition, for 32-bit
Operating system for terminal server	Windows Server 2003 Standard edition, for 32-bit	Windows Server 2008 Standard edition, for 32-bit
Terminal server-software	Windows Server 2003 Standard edition, for 32-bit	Windows Server 2008 Standard edition, (Citrix Presentation Server 4.5 or Citrix XenServer, if necessary)
Virtualization platform	VMware Infrastructure 3	
Random access memory (RAM)	2 GB	4 GB
Database	MS SQL Server 2005 SP4	MS SQL Server 2008 SP1
Hard disk	15 GB free hard disk storage for installation	
Drive	DVD-ROM-Laufwerk	DVD-ROM-Laufwerk
Network	100 MBit	1 GBit
Uninterrupted power supply (UPS)	UPS + redundant power supply	
Licence management	Till instacount® PLUS 2.7.x: USB-Hardlock Up from instacount® PLUS 3.0: instacount licence server	
Software from operating system	Internet Explorer. Up from version 6.0 Windows Mediaplayer	
Data backup	We expressly ephasize the necessity to provide for appropriate data backup through an internal solution to save datas.	
Remote maintenance	VPN or SSL-Webaccess	

Hard disk drives: We recommend Raid5 configuration of at least 3 hard disks.
Network: Provided by the customer, incl. all active and passive network components.
License administration: The Hardlock does not require a computer. Special USB 2 Ethernet boxes can be used as client substitute. From instacount version 3.0, license protection is by software only.
Data backup: The volume of data to be backed up depends on the number of devices, whose batch data need to be backed up. The average volume is about 10-15GB/year, with database sizes averaging between 0.5 GB and 2.5 GB.
Remote maintenance: For the router, we recommend using products by Lancom.
Suitable remote-maintenance software is pcAnywhere Host 12.0, VNC and the appropriate Windows utilities.
The above recommendations assume a 10-client installation.

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Recommended hardware for instacount® PLUS, instacount® BASIC network

Specifications for computing equipment for server/client installation

Client	Required	Recommended
Processor	Intel™ or compatible systems with 2,0 GHz Intel® Pentium® processor	Intel™ or compatible systems with 2,0 GHz Intel™ Dual Core Intel® Pentium® processor
Operating system	Windows XP Professionell SP2, for 32-bit	Up from instacount PLUS 3.0: Windows 7, for 32-bit
Random access memory (RAM)	1 GB	2 GB
Data base (PC for database registration)	MS SQL Server 2005 Express edition SP4 (one licence per installation, NOT per each client)	MS SQL Server 2008 Express edition SP1
Hard disk	15 GB free hard disk storage for installation	
Drive	DVD-ROM-drive	DVD-ROM-drive
Network	100 MBit	1 GBit
Licence management (PC for database registration)	Till instacount® PLUS 2.7.x: USB Hardlock Up from instacount® PLUS 3.0: instacount licence server	
Software from operating system	Internet Explorer, Up from version 6.0 Windows Mediaplayer	
Interfaces	Serial interface for Handheld scanners/ TAG-Reader	USB interface für Data Matrix scanner
Remote maintenance	VNC	

Remote maintenance:
After central dial-in to a remote server or the "instacount server", one client per VNC, Dameware and pcAnywhere will be easiest to support. Alternatively, remote maintenance can run through Remote Desktop.

Internet access:
From instacount version 3.0, product database information can be called up from within the application, via the Internet. This function requires an operational Internet connection.

What are the conditions under which no separate instacount server is required?
The instacount PLUS database can reside on any recommended MS SQL server already in use. An existing Fileserver/SAN can be employed to store report, media and process data files.
instacount® PLUS needs to be installed only on the clients.

PC for instacount.DECON

For use in the unsterile zone we recommend PCs of Protection Class IP65, e.g. the Penta Hercules Medical 19". These special computers are protected against dirt and spray water and, therefore, easier to decontaminate.

PC for instacount.PDI

Depending on the number of washers/disinfectors and sterilizers linked to the system, we recommend a configuration in line with the recommendations for the client installation. Alternatively, a server operating system can be used. If the interface software – should such be required – of the washer/disinfector/sterilizer manufacturers supports virtual environments, we recommend virtualization of the "PDI client". The CSSD operatives must be enabled to access and monitor the "PDI client". This can be realized by VMware Infrastructure Client or VNC. Please note that the interface software and some instacount PDIs, as applications, require that a user session is opened!

PC for database registration

The basic configuration of the PC should follow the recommendation for the client installation. MS SQL Server 2005/2008 Express Edition incl. Management Studio and the current Service Pack can be used as the local database server. Please ensure proper data backup by facilities such as customer-owned/installed CD burner / USB mass storage. A single-workstation hardlock is used as license protection for instacount® PLUS upto version 2.7.x., from version 3.0 and higher the License Server.

Thin Clients

Thin Clients must feature a serial interface. This interface's functionality must be tested with a bar code scanner, prior to installation!

System hardware

For the deployment of not remarked hardware in the hardware recommendation with the instacount® PLUS system solution, label printers, bar code scanners and mobile terminals require testing and enabling. For customers preferring to use their own procurement channels, the instacount® PLUS support team advises to get in touch prior to any purchase. On request, we will be happy to provide a list of approved components.

System software

The system software encompasses software components and drivers enabling the operation of instacount® PLUS in a client/server environment. These include: .NET 2.0 Framework SP1, Bar code fonts, Crystal Reports version XI R 2 and hardlock driver/server (instacount® PLUS up to version 2.7.x) or DevExpress Runtime (instacount® PLUS 3.0 and later), License Server.
The components are set up by the service technicians, as part of the installation

Support

Should you have further questions regarding system requirements and system hardware, our instacount® PLUS support team is always there to help, either via phone, on **+49 (0)1805/ 46 78 22 68 68*** (Monday to Friday, 8 am to 4:30 pm) or by E-mail, under **support@invitec.com**.

*€ 0.14 /min. via land line, max. € 0.42 /min. via mobile/cellphone.

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